D2E146-HT67-86

AC centrifugal fan

forward-curved, dual-intake

with housing (flange)

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Nominal data

Type	**D2E146-HT67-86**
Motor	**M2E068-EC**

Phase		1~	1~
Nominal voltage	VAC	230	230
Frequency	Hz	50	60
Method of obtaining data		ml	ml
Valid for approval/standard		-	-
Speed (rpm)	min^{-1}	1850	2100
Power consumption	W	355	400
Current draw	A	1.55	1.75
Capacitor	µF	8	8
Capacitor voltage	VDB	450	450
Capacitor standard		S2 (CE)	S2 (CE)
Min. back pressure	Pa	0	200
Min. back pressure	inH2O	0	0.8
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	55	50
Starting current	A	1.8	1.9

ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment
Subject to change

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Technical description

Weight	3.5 kg
Fan size	146 mm
Rotor surface	Unpainted
Terminal box material	PP plastic
Impeller material	Sheet steel, galvanized
Housing material	PP plastic
Motor suspension	Motor vibration-damped on both sides
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	IP20
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	H0 - dry environment
Max. permitted ambient temp. for motor (transport/storage)	+ 80 °C
Min. permitted ambient temp. for motor (transport/storage)	- 40 °C
Installation position	Any
Condensation drainage holes	None, open rotor
Mode	S1
Motor bearing	Ball bearing
Speed levels	4
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	< 0.75 mA
Electrical hookup	With plug; Via terminal box, capacitor integrated and connected
Motor protection	Thermal overload protector (TOP) internally connected
With cable	Variable
Protection class	I (with customer connection of protective earth)
Motor capacitor according to EN 60252-1 in safety protection class	S2
Conformity with standards	EN 60335-2-31
Approval	VDE

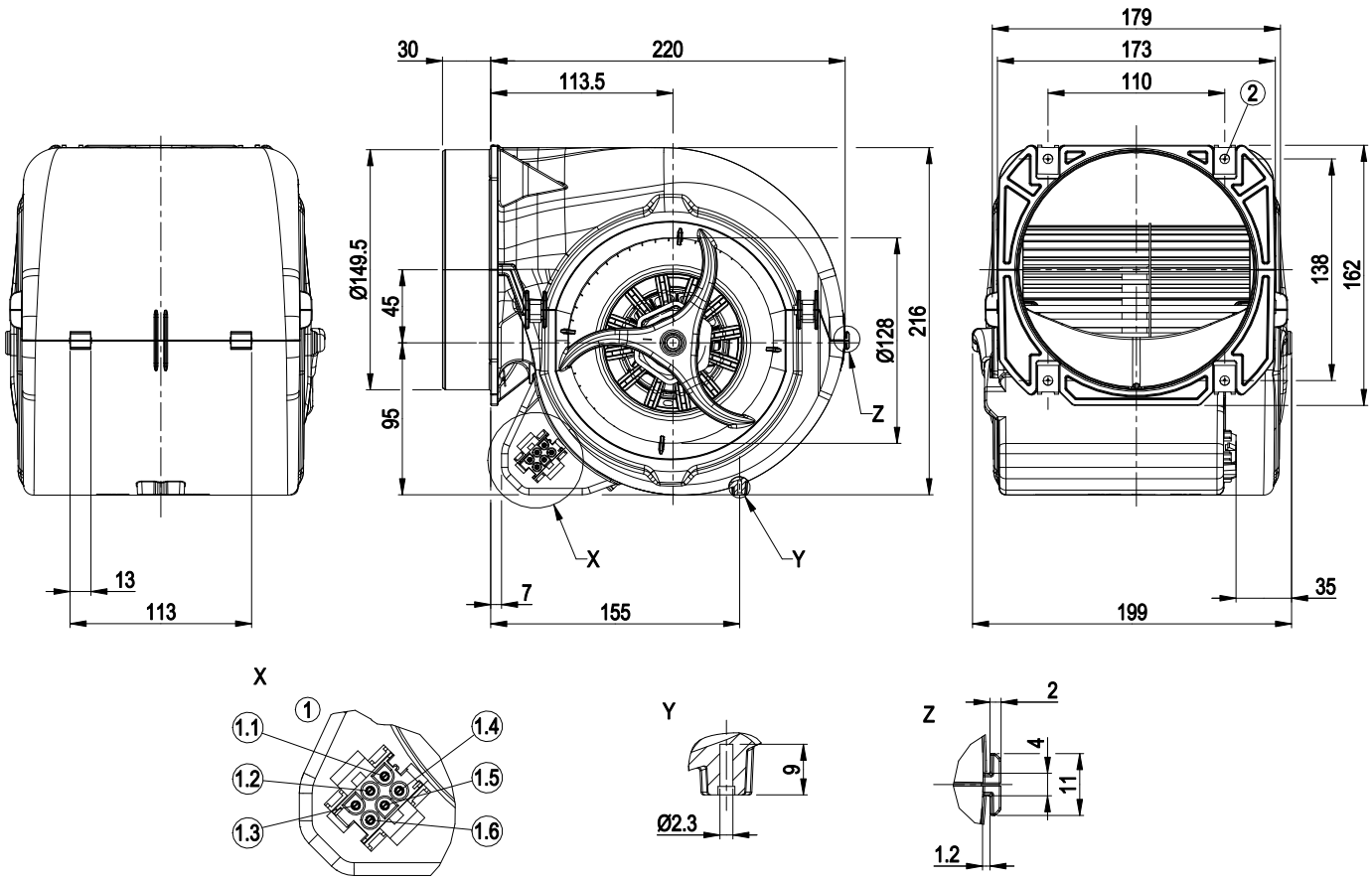
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Product drawing



1	tyco coded plug system Universal-Mate-N-Lok, connector housing: tyco 926682-3, 6x plug pin tyco 926886-1
1.1	L = step 1 (min.)
1.2	L = step 2
1.3	L = step 3
1.4	L = step 4 (max.)
1.5	N
1.6	PE
2	4 x sheet metal nut for thread EN ISO 1478- ST 4.8 (screw length at least 14.5 plus thickness of mounting material)

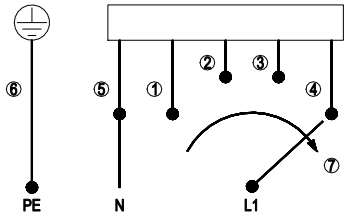
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Connection diagram



The switch must interrupt the circuit when switching.

1	Step 1 (min.)	2	Step 2	3	Step 3
4	Step 4 (max.)	5	N	6	PE protective earth
7	Speed increasing				

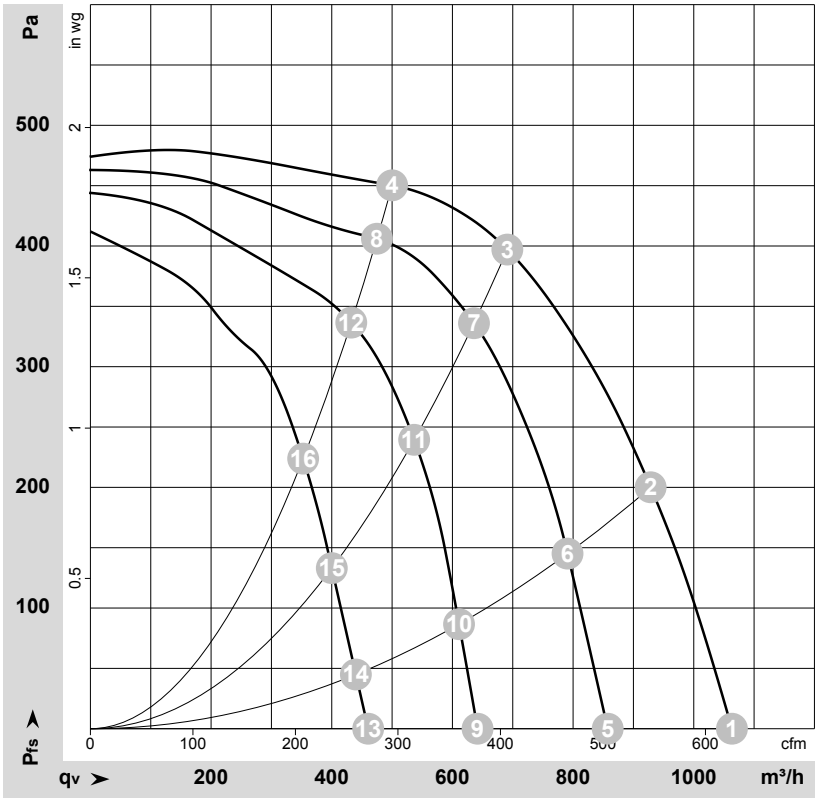
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Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-45713-1
Measurement: LU-45715-1
Measurement: LU-45717-1
Measurement: LU-45719-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebm-papst. Intake sound level: Sound power level according to ISO 13347 / sound pressure level measured at 1 m distance from fan axis. The values given are valid under the specified measuring conditions and may vary due to conditions of installation. For deviations from the standard configuration, the parameters have to be checked on the installed unit.

Measured values

	Stage	U	f	n	P_e	I	q_V	p_{fs}	q_V	p_{fs}
		V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	inH2O
1	4	230	50	1850	355	1.55	1065	0	625	0.00
2	4	230	50	2155	317	1.38	930	200	545	0.80
3	4	230	50	2440	266	1.16	690	400	405	1.61
4	4	230	50	2580	234	1.02	500	450	295	1.81
5	3	230	50	1550	285	1.26	855	0	505	0.00
6	3	230	50	1855	261	1.18	790	145	465	0.58
7	3	230	50	2245	220	1.03	635	337	375	1.35
8	3	230	50	2465	187	0.90	475	406	280	1.63
9	2	230	50	1195	233	1.05	640	0	380	0.00
10	2	230	50	1455	222	1.02	610	88	360	0.35
11	2	230	50	1905	195	0.93	535	240	315	0.96
12	2	230	50	2240	166	0.84	430	337	255	1.35
13	1	230	50	875	195	0.89	460	0	270	0.00
14	1	230	50	1055	191	0.88	440	45	260	0.18
15	1	230	50	1440	179	0.84	400	133	235	0.53
16	1	230	50	1860	158	0.78	355	225	210	0.90

U = Power supply · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase

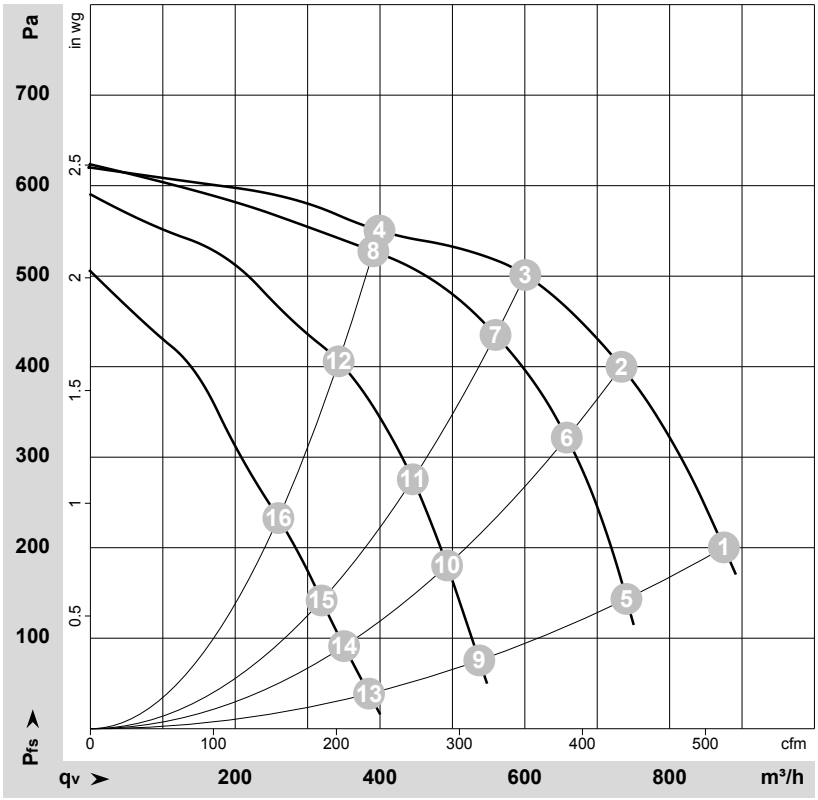
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Curves: Air performance 60 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-45714-1
Measurement: LU-45716-1
Measurement: LU-45718-1
Measurement: LU-45720-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebm-papst. Intake sound level: Sound power level according to ISO 13347 / sound pressure level measured at 1 m distance from fan axis. The values given are valid under the specified measuring conditions and may vary due to conditions of installation. For deviations from the standard configuration, the parameters have to be checked on the installed unit.

Measured values

	Stage	U	f	n	P_e	I	q_V	p_{fs}	q_V	p_{fs}
		V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	inH2O
1	4	230	60	2100	400	1.75	875	200	515	0.80
2	4	230	60	2480	377	1.64	735	400	430	1.61
3	4	230	60	2705	358	1.57	600	500	355	2.01
4	4	230	60	2895	339	1.50	400	550	235	2.21
5	3	230	60	1785	295	1.37	740	143	435	0.57
6	3	230	60	2220	277	1.33	660	323	385	1.30
7	3	230	60	2530	258	1.29	560	436	330	1.75
8	3	230	60	2815	232	1.23	390	528	230	2.12
9	2	230	60	1330	228	1.10	535	76	315	0.31
10	2	230	60	1685	220	1.09	495	181	290	0.73
11	2	230	60	2035	208	1.07	445	277	260	1.11
12	2	230	60	2525	184	1.02	345	409	200	1.64
13	1	230	60	955	187	0.92	385	38	225	0.15
14	1	230	60	1180	183	0.91	350	89	205	0.36
15	1	230	60	1435	179	0.90	320	142	190	0.57
16	1	230	60	1870	169	0.88	260	233	155	0.94

U = Power supply · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase

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